

SEQUENCE LISTING

<110> Chen, Lieping

<120> B7-H1, A NOVEL IMMUNOREGULATORY MOLECULE

<130> 07039/187001

<140> US 09/451,291

<141> 1999-11-30

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<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 290

<212> PRT

<213> Homo sapiens

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 35 40 45
 Asp Leu Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp Lys Asn Ile
 50 55 60
 Ile Gln Phe Val His Gly Glu Glu Asp Leu Lys Val Gln His Ser Ser
 65 70 75 80
 Tyr Arg Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn
 85 90 95
 Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr
 100 105 110
 Arg Cys Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val
 115 120 125
 Lys Val Asn Ala Pro Tyr Asn Lys Ile Asn Gln Arg Ile Leu Val Val
 130 135 140
 Asp Pro Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr
 145 150 155 160
 Pro Lys Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser
 165 170 175
 Gly Lys Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn
 180 185 190
 Val Thr Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr
 195 200 205
 Cys Thr Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu
 210 215 220
 Val Ile Pro Glu Leu Pro Leu Ala His Pro Pro Asn Glu Arg Thr His
 225 230 235 240
 Leu Val Ile Leu Gly Ala Ile Leu Leu Cys Leu Gly Val Ala Leu Thr
 245 250 255
 Phe Ile Phe Arg Leu Arg Lys Gly Arg Met Met Asp Val Lys Lys Cys
 260 265 270
 Gly Ile Gln Asp Thr Asn Ser Lys Lys Gln Ser Asp Thr His Leu Glu
 275 280 285
 Glu Thr
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 <212> DNA
 <213> Homo sapiens

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 gataagaaca ttattcaatt tgtgcatgga gaggaagacc tgaaggttca gcatagtagc 240
 tacagacaga gggcccggtt gttgaaggac cagctctccc tgggaaatgc tgcacttcag 300
 atcacagatg tgaaattgca ggatgcaggg gtgtaccgct gcatgatcag ctatggtggt 360
 gccgactaca agcgaattac tgtgaaagtc aatgccccat acaacaaaat caaccaaaaga 420
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 accaccaatt ccaagagaga ggagaagctt ttcaatgtga ccagcacact gagaatcaac 600
 acaacaacta atgagatttt ctactgcact tttaggagat tagatcctga ggaaaaccat 660
 acagctgaat tggatcatccc agaactacct ctggcacatc ctccaaatga aaggactcac 720
 ttggttaattc tgggagccat cttattatgc cttggtgtag cactgacatt catcttccgt 780
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 <212> PRT
 <213> Mus musculus

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 Gly Ser Asn Val Thr Met Glu Cys Arg Phe Pro Val Glu Arg Glu Leu
 35 40 45
 Asp Leu Leu Ala Leu Val Val Tyr Trp Glu Lys Glu Asp Glu Gln Val
 50 55 60
 Ile Gln Phe Val Ala Gly Glu Glu Asp Leu Lys Pro Gln His Ser Asn
 65 70 75 80
 Phe Arg Gly Arg Ala Ser Leu Pro Lys Asp Gln Leu Leu Lys Gly Asn
 85 90 95
 Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr
 100 105 110
 Cys Cys Ile Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Leu
 115 120 125
 Lys Val Asn Ala Pro Tyr Arg Lys Ile Asn Gln Arg Ile Ser Val Asp
 130 135 140
 Pro Ala Thr Ser Glu His Glu Leu Ile Cys Gln Ala Glu Gly Tyr Pro
 145 150 155 160
 Glu Ala Glu Val Ile Trp Thr Asn Ser Asp His Gln Pro Val Ser Gly
 165 170 175
 Lys Arg Ser Val Thr Thr Ser Arg Thr Glu Gly Met Leu Leu Asn Val
 180 185 190
 Thr Ser Ser Leu Arg Val Asn Ala Thr Ala Asn Asp Val Phe Tyr Cys
 195 200 205
 Thr Phe Trp Arg Ser Gln Pro Gly Gln Asn His Thr Ala Glu Leu Ile
 210 215 220
 Ile Pro Glu Leu Pro Ala Thr His Pro Pro Gln Asn Arg Thr His Trp
 225 230 235 240
 Val Leu Leu Gly Ser Ile Leu Leu Phe Leu Ile Val Val Ser Thr Val
 245 250 255
 Leu Leu Phe Leu Arg Lys Gln Val Arg Met Leu Asp Val Glu Lys Cys
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 Glu Thr
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 <212> DNA
 <213> Mus musculus

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 <222> (1)...(870)

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 cgg gcg ttt act atc acg gct cca aag gac ttg tac gtg gtg gag tat 96
 Arg Ala Phe Thr Ile Thr Ala Pro Lys Asp Leu Tyr Val Val Glu Tyr
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 ggc agc aac gtc acg atg gag tgc aga ttc cct gta gaa cgg gag ctg 144
 Gly Ser Asn Val Thr Met Glu Cys Arg Phe Pro Val Glu Arg Glu Leu
 35 40 45
 gac ctg ctt gcg tta gtg gtg tac tgg gaa aag gaa gat gag caa gtg 192
 Asp Leu Leu Ala Leu Val Val Tyr Trp Glu Lys Glu Asp Glu Gln Val
 50 55 60
 att cag ttt gtg gca gga gag gag gac ctt aag cct cag cac agc aac 240
 Ile Gln Phe Val Ala Gly Glu Glu Asp Leu Lys Pro Gln His Ser Asn
 65 70 75 80
 ttc agg ggg aga gcc tcg ctg cca aag gac cag ctt ttg aag gga aat 288
 Phe Arg Gly Arg Ala Ser Leu Pro Lys Asp Gln Leu Leu Lys Gly Asn
 85 90 95
 gct gcc ctt cag atc aca gac gtc aag ctg cag gac gca ggc gtt tac 336
 Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr
 100 105 110
 tgc tgc ata atc agc tac ggt ggt gcg gac tac aag cga atc acg ctg 384
 Cys Cys Ile Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Leu
 115 120 125
 aaa gtc aat gcc cca tac cgc aaa atc aac cag aga att tcc gtg gat 432
 Lys Val Asn Ala Pro Tyr Arg Lys Ile Asn Gln Arg Ile Ser Val Asp
 130 135 140
 cca gcc act tct gag cat gaa cta ata tgt cag gcc gag ggt tat cca 480
 Pro Ala Thr Ser Glu His Glu Leu Ile Cys Gln Ala Glu Gly Tyr Pro
 145 150 155 160
 gaa gct gag gta atc tgg aca aac agt gac cac caa ccc gtg agt ggg 528
 Glu Ala Glu Val Ile Trp Thr Asn Ser Asp His Gln Pro Val Ser Gly
 165 170 175
 aag aga agt gtc acc act tcc cgg aca gag ggg atg ctt ctc aat gtg 576
 Lys Arg Ser Val Thr Thr Ser Arg Thr Glu Gly Met Leu Leu Asn Val
 180 185 190

acc agc agt ctg agg gtc aac gcc aca gcg aat gat gtt ttc tac tgt 624
 Thr Ser Ser Leu Arg Val Asn Ala Thr Ala Asn Asp Val Phe Tyr Cys
 195 200 205

acg ttt tgg aga tca cag cca ggg caa aac cac aca gcg gag ctg atc 672
 Thr Phe Trp Arg Ser Gln Pro Gly Gln Asn His Thr Ala Glu Leu Ile
 210 215 220

atc cca gaa ctg cct gca aca cat cct cca cag aac agg act cac tgg 720
 Ile Pro Glu Leu Pro Ala Thr His Pro Pro Gln Asn Arg Thr His Trp
 225 230 235 240

gtg ctt ctg gga tcc atc ctg ttg ttc ctc att gta gtg tcc acg gtc 768
 Val Leu Leu Gly Ser Ile Leu Leu Phe Leu Ile Val Val Ser Thr Val
 245 250 255

ctc ctc ttc ttg aga aaa caa gtg aga atg cta gat gtg gag aaa tgt 816
 Leu Leu Phe Leu Arg Lys Gln Val Arg Met Leu Asp Val Glu Lys Cys
 260 265 270

ggc gtt gaa gat aca agc tca aaa aac cga aat gat aca caa ttc gag 864
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 275 280 285

gag acg taa 873
 Glu Thr
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 Met Arg Ile Phe Ala Val Phe Ile Phe Met Thr Tyr Trp
 1 5 10

cat ttg ctg aac gca ttt act gtc acg gtt ccc aag gac cta tat gtg 159
 His Leu Leu Asn Ala Phe Thr Val Thr Val Pro Lys Asp Leu Tyr Val
 15 20 25

gta gag tat ggt agc aat atg aca att gaa tgc aaa ttc cca gta gaa 207
 Val Glu Tyr Gly Ser Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu
 30 35 40 45

aaa caa tta gac ctg gct gca cta att gtc tat tgg gaa atg gag gat 255
 Lys Gln Leu Asp Leu Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp
 50 55 60

aag aac att att caa ttt gtg cat gga gag gaa gac ctg aag gtt cag 303
 Lys Asn Ile Ile Gln Phe Val His Gly Glu Glu Asp Leu Lys Val Gln
 65 70 75

cat agt agc tac aga cag agg gcc cgg ctg ttg aag gac cag ctc tcc 351
 His Ser Ser Tyr Arg Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser
 80 85 90

ctg gga aat gct gca ctt cag atc aca gat gtg aaa ttg cag gat gca 399
 Leu Gly Asn Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala
 95 100 105

ggg gtg tac cgc tgc atg atc agc tat ggt ggt gcc gac tac aag cga 447
 Gly Val Tyr Arg Cys Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg
 110 115 120 125

att act gtg aaa gtc aat gcc cca tac aac aaa atc aac caa aga att 495
 Ile Thr Val Lys Val Asn Ala Pro Tyr Asn Lys Ile Asn Gln Arg Ile
 130 135 140

ttg gtt gtg gat cca gtc acc tct gaa cat gaa ctg aca tgt cag gct 543
 Leu Val Val Asp Pro Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala
 145 150 155

gag ggc tac ccc aag gcc gaa gtc atc tgg aca agc agt gac cat caa 591
 Glu Gly Tyr Pro Lys Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln
 160 165 170

gtc ctg agt ggt aag acc acc acc acc aat tcc aag aga gag gag aag 639
 Val Leu Ser Gly Lys Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys
 175 180 185

ctt ttc aat gtg acc agc aca ctg aga atc aac aca aca act aat gag 687
 Leu Phe Asn Val Thr Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu
 190 195 200 205

att ttc tac tgc act ttt agg aga tta gat cct gag gaa aac cat aca 735
 Ile Phe Tyr Cys Thr Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr
 210 215 220

gct gaa ttg gtc atc cca gaa cta cct ctg gca cat cct cca aat gaa 783
 Ala Glu Leu Val Ile Pro Glu Leu Pro Leu Ala His Pro Pro Asn Glu
 225 230 235

agg act cac ttg gta att ctg gga gcc atc tta tta tgc ctt ggt gta 831
 Arg Thr His Leu Val Ile Leu Gly Ala Ile Leu Leu Cys Leu Gly Val
 240 245 250

gca ctg aca ttc atc ttc cgt tta aga aaa ggg aga atg atg gat gtg 879
 Ala Leu Thr Phe Ile Phe Arg Leu Arg Lys Gly Arg Met Met Asp Val
 255 260 265

aaa aaa tgt ggc atc caa gat aca aac tca aag aag caa agt gat aca 927
 Lys Lys Cys Gly Ile Gln Asp Thr Asn Ser Lys Lys Gln Ser Asp Thr
 270 275 280 285

cat ttg gag gag acg taatccagca ttggaacttc tgatcttcaa gcagggattc 982
 His Leu Glu Glu Thr
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 <212> PRT
 <213> Homo sapiens

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 <212> PRT
 <213> Bovidae

<400> 7
 Lys Phe Glu Arg Gln
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<210> 8
 <211> 15

<212> PRT
 <213> Homo sapiens

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 <211> 4
 <212> PRT
 <213> Rattus rattus

<400> 9
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<210> 10
 <211> 210
 <212> PRT
 <213> Homo sapiens

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 Lys Asn Ile Ile Gln Phe Val His Gly Glu Glu Asp Leu Lys Val Gln
 35 40 45
 His Ser Ser Tyr Arg Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser
 50 55 60
 Leu Gly Asn Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala
 65 70 75 80
 Gly Val Tyr Arg Cys Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg
 85 90 95
 Ile Thr Val Lys Val Asn Ala Pro Tyr Asn Lys Ile Asn Gln Arg Ile
 100 105 110
 Leu Val Val Asp Pro Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala
 115 120 125
 Glu Gly Tyr Pro Lys Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln
 130 135 140
 Val Leu Ser Gly Lys Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys
 145 150 155 160
 Leu Phe Asn Val Thr Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu
 165 170 175
 Ile Phe Tyr Cys Thr Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr
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 Ala Glu Leu Val Ile Pro Glu Leu Pro Leu Ala His Pro Pro Asn Glu
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 Arg Thr
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<210> 11
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 <213> Homo sapiens

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 35 40 45
 Lys Asn Arg Thr Ile Phe Asp Ile Thr Asn Asn Leu Ser Ile Val Ile
 50 55 60
 Leu Ala Leu Arg Pro Ser Asp Glu Gly Thr Tyr Glu Cys Val Val Leu
 65 70 75 80
 Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His Leu Ala Glu Val Thr
 85 90 95
 Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser Ile Ser Asp Phe Glu
 100 105 110
 Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys Ser Thr Ser Gly Gly
 115 120 125
 Phe Pro Glu Pro His Leu Ser Trp Leu Glu Asn Gly Glu Glu Leu Asn
 130 135 140
 Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu Thr Glu Leu Tyr Ala
 145 150 155 160
 Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr Asn His Ser Phe Met
 165 170 175
 Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn Gln Thr Phe Asn Trp
 180 185 190
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 195 200 205

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 <212> PRT
 <213> Homo sapiens

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 Asn Leu Val Leu Asn Glu Val Tyr Leu Gly Lys Glu Lys Phe Asp Ser
 35 40 45
 Val His Ser Lys Tyr Met Gly Arg Thr Ser Phe Asp Ser Asp Ser Trp
 50 55 60
 Thr Leu Arg Leu His Asn Leu Gln Ile Lys Asp Lys Gly Leu Tyr Gln
 65 70 75 80
 Cys Ile Ile His His Lys Lys Pro Thr Gly Met Ile Arg Ile His Gln
 85 90 95
 Met Asn Ser Glu Leu Ser Val Leu Ala Asn Phe Ser Gln Pro Glu Ile
 100 105 110
 Val Pro Ile Ser Asn Ile Thr Glu Asn Val Tyr Ile Asn Leu Thr Cys
 115 120 125
 Ser Ser Ile His Gly Tyr Pro Glu Pro Lys Lys Met Ser Val Leu Leu
 130 135 140
 Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp Gly Ile Met Gln Lys Ser
 145 150 155 160
 Gln Asp Asn Val Thr Glu Leu Tyr Asp Val Ser Ile Ser Leu Ser Val
 165 170 175
 Ser Phe Pro Asp Val Thr Ser Asn Met Thr Ile Phe Cys Ile Leu Glu
 180 185 190
 Thr Asp Lys Thr Arg Leu Leu Ser Pro Phe Ser Ile Glu Leu Glu
 195 200 205
 Asp Pro Gln Pro Pro Pro Asp His Ile Pro
 210 215